



SUNSET & HEATHFIELD PUMP STATIONS AND MAIN FORCE UPGRADES

Project Summary

- Work inside two operational pump stations to demolish, replace, reconfigure and provide new equipment.
- Eight 450 HP vertical centrifugal raw sewage pumps, four at each pump station.
- Upgrade of electrical systems including switchboards, VFD's, MCC's, standby engine generators, and appurtenant wiring, conduit, and cable tray at both pump stations.
- Upgrade of mechanical systems including variable refrigerant HVAC, odor control exhaust fans and ductwork, instrument air compressors, and seal water systems at both pump stations, hydraulic power unit and actuator at SPS, and corrosion control systems.
- Upgrade of structural systems including bridge crane and monorail hoist and floor slab modifications at both pump stations.
- Upgrade of architectural systems including roofing, entry doors, and interior enclosures at both pump stations.
- Upgrade of building piping systems including flow metering equipment at SPS and the removal and replacement of suction piping and discharge piping and knife gate isolation valves at both pump stations.
- Upgrade of conveyance system piping including approximately 1,760 linear feet of 24" nominal diameter force main piping by horizontal directional drilling.
- Upgrade of conveyance system piping including approximately 4,000 linear feet of 24" nominal diameter force main piping by open cut and trenchless methods.
- Construction of manholes, and appurtenant gravity sanitary sewer piping.
- Sanitary sewer flow control, utility relocation, utility abandonment, traffic control, pavement restoration, landscape and surface feature restoration, and erosion and sediment control.
- Roof replacements at both pump stations which includes a Green Roof at SPS.
- Fiber optic cable between Sunset pump station, Heathfield Pump Station, and manhole MH R11-65B at the northeast corner of SE Eastgate Way and 161st Ave SE.
- Landscape Restoration

Burke Electric Scope

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- Installation of Auto Throw Over system that is completely automated. This system was designed to operate between two separate utility electrical services and one back up generator which are able to divert power around to different loads all electronically.

Problems Encountered and Solutions Executed

The main problem encounter was lack of design by the owner or their engineer with regards to keeping the station operational while removing and installing new equipment. Burke Electric's own general foreman, Jimmy Barrom designed the temporary service and controls including the crossover to the new system.

Burke Electric Project Personnel

James Barrom, General Foreman
 Keith Fenstermaker, Foreman
 Ray Cabuag, Foreman
 Pete Kelly, Project Manager
 Dominic Burke, COO
 Katie Morton, Safety Manager



Equipment and Systems Overview

- (8) each 450HP Vertical Centrifugal Raw Sewage Pumps
- 480V Switchboards
- Local Control Panels
- 480V Motor Control Centers
- 480V, 600HP Variable Frequency Drives
- Standby Engine Generators
- Appurtenant Wiring
- Fiber Optic Cable
- 600V cable & Wiring
- Instrumentation
- Lighting
- Fire Alarm System
- Diesel Fuel Leak Detection & Inventory System
- Raceway & Wiring

Offeror Role

Subcontractor

Owner Information

King County Department of Parks and Natural Resources Wastewater Treatment Division

Contract Amount & Type

\$7,302,322 - Firm Fixed Price

Customer Information

Flatiron Construction
 15400 SE 30th Pl. #105
 Bellevue, WA 98007
 Michael Van Winden, Project Manager
 425.420.9927

Project Start and Finish Dates

8/2/2017–11/1/2021

Project Location

Heathfield Pump Station
 3541 163rd Ave SE Bellevue, WA 98009

Sunset Pump Station

3730 West Lake Sammamish Parkway SE
 Bellevue, WA 98008